The relationship between Einstein Field Equation and Blackbody radiation law

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Abstract: When Einstein Field Equation and Blackbody radiation law are related, they can deduce a new conclusion.

Key words: Einstein Field Equation, Blackbody radiation law, Rydberg constant, Electron rest mass.

First, we know that Einstein Field Equation is $(G_{\mu\nu}) = (R_{\mu\nu}) \quad \frac{1}{2}(g_{\mu\nu})(R) = \frac{8\pi(G_N)}{(c)^4}(T_{\mu\nu})$,

The Blackbody radiation law is $I_\nu(\nu,T) = \frac{2h\nu^3}{c^2(e^{\frac{h\nu}{KT}}-1)}$, $\upsilon_\nu(\nu,T) = \frac{4\pi}{c}I_\nu(\nu,T) = \frac{8\pi h\nu^3}{c^3(e^{\frac{h\nu}{KT}}-1)}$,

Forget it, I'd better draw a conclusion directly. I'm sure you can understand it.And then I found out that there could be.

First, if there is $(G_{\mu\nu}) = (R_{\mu\nu}) - \frac{1}{2}(g_{\mu\nu})(R) = \upsilon_\nu(\nu,T) = \frac{4\pi}{c}I_\nu(\nu,T) = \frac{8\pi h\nu^3}{c^3(e^{\frac{h\nu}{KT}}-1)}$,

then there is $(T_{\mu\nu}) = \frac{(R_\infty)(m_e)\nu^3}{(c)^3(e^{\frac{(R_\infty)(m_e)[\alpha_0]^2(c)^2\nu}{T}}-1)}$.

So, to avoid misunderstanding the above formula, change the blackbody radiation formula to a symbol.

$$\zeta_x(x,z) = \frac{8\pi h x^3}{c^3(e^{\frac{hx}{Kz}}-1)} = \frac{8\pi(G_N)(R_\infty)(m_e)x^3}{c^3(e^{\frac{(e_0)(c)x}{z}}-1)} ,$$

You can have,

$$\Rightarrow (G_{\mu\nu})\frac{(R_\infty)(m_e)x^3}{(c)^3(e^{\frac{(R_\infty)(m_e)[\alpha_0]^2(c)^2x}{z}}-1)} = (T_{\mu\nu})\zeta_x(x,z) ,$$

OK, I'm done.

Where (c) is the Speed of light, (e_o) is the Elementary charge, $[\alpha_o]$ is the Fine structure constant, (R_∞) is the Rydberg constant, (m_e) is the Electron rest mass, (G_N) is the Gravitational constant.

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